**Amendment to the Claims**

This listing of Claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

1. (Currently Amended) A substrate adapted for selective micron and nanometer scale deposition, the substrate having;

a support;

a conductive layer on the support;

a dielectric layer of a material which will hold an electrostatic charge, the dielectric layer disposed on the conductive layer; and

a continuous chemically ~~protective and~~ functional layer on the dielectric layer, the chemically ~~protective and~~ functional layer providing both a protective layer for the dielectric layer and a chemically reactive surface for compounds deposited on the surface;

wherein the chemically functional layer prevents liquids and the compounds deposited on the surface from accessing the dielectric layer; and

wherein the substrate is capable of having electrostatic charge patterns formed in a predetermined manner thereupon or therein.

2. (Original) A substrate as in Claim 1 wherein the support is selected from the group comprising a metal, glass, ceramic, or polymeric material and the support is clear or opaque and flexible or rigid.

3. (Original) A substrate as in Claim 1 wherein the conductive layer is

combined with the support.

4. (Original) A substrate as in Claim 1 wherein the conductive layer is a very thin layer and is transparent.

5. (Previously Presented) A substrate as in Claim 1 wherein the conductive layer is vacuum-deposited onto the support.

6. (Original) A substrate as in Claim 1 wherein the conductive layer is selected from the group comprising a sputtered layer of metal or indium tin oxide, or a carbon nano-tube layer.

7. (Previously Presented) A substrate as in Claim 1 wherein the dielectric layer comprises a material selected from the group consisting of a glass, a polymeric resin and a methylmethacrylate (MMA).

8. (Previously Presented) A substrate as in Claim 1 wherein the dielectric in the dielectric layer comprises a photoconductor.

9. (Previously Presented) A substrate as in Claim 8 wherein the photoconductor is selected from the group comprising zinc oxide, cadmium sulphide, lead sulphide, lead selenide, amorphous selenium, doped selenium, alloys of selenium including selenium- tellurium, selenium-arsenic, organic photoconductive materials.

10. (Currently Amended) A substrate as in Claim 1 wherein the chemically ~~protective and~~ functional layer comprises a material selected from the group consisting of a silane polymer, silicon dioxide, silicon nitride ($Si_xN_y$), titanium dioxide, organic titanates and zirconates, cross-linked or partially cross-linked epoxy novolac resins, polymerised oligomers, cross-linked resins, functionalised parylene (a polymer of di-para-xylyene), acrylates and methacrylates which may include functional groups, multi-functional acrylates and methacrylates, and monomers which have been crosslinked with a photoinitiator.

11. (Currently Amended) A substrate having;

a support;

a conductive layer on the support;

a photoconductive layer of a material which is adapted to have an electrostatic charge thereon selectively dissipated upon receiving incident radiation, the photoconductive layer disposed on the conductive layer; and

a continuous chemically ~~protective and~~ functional layer on the photoconductive layer, the chemically ~~protective and~~ functional layer providing both a protective layer for the photoconductive layer and a chemically reactive surface for compounds deposited on the surface;

wherein the chemically functional layer prevents liquids and the compounds deposited on the surface from accessing the photoconductive layer; and

wherein the substrate is capable of having electrostatic charge patterns

formed in a selected array thereupon to influence the movement of charged droplets in a liquid medium on the substrate.

12. (Currently Amended) A substrate adapted for manufacture of DNA arrays, the substrate having;

a support;

a conductive layer on the support;

a photoconductive layer of a material which is adapted to have an electrostatic charge thereon dissipated upon receiving incident radiation, the photoconductive layer disposed on the conductive layer; and

a continuous chemically ~~protective and~~ functional layer on the photoconductive layer, the chemically ~~protective and~~ functional layer providing a protective layer for the photoconductive layer;

wherein the chemically functional layer prevents liquids and compounds deposited on the chemically functional layer from accessing the photoconductive layer; and

wherein the substrate is capable of having electrostatic charge patterns formed in a selected array thereupon to influence the movement of charged droplets in a liquid medium on the substrate;

the chemically ~~protective and~~ functional layer comprising at least in part a chemically active material to which a molecule can be attached, the molecule being selected from the group consisting of a binder molecular and a binder molecule with at least one DNA oligomer joined thereto, whereby the substrate is capable of having a selected electric charge pattern generated thereupon by incident radiation to enable selective chemical de-protection of

the binder molecule or the at least one DNA oligomer already joined to a the binder molecule.

13. (Currently Amended) A substrate adapted for manufacture of DNA arrays, the substrate having;

a support;

a conductive layer on the support;

a photoconductive layer of a material which is adapted to have an electrostatic charge thereon selectively dissipated upon receiving incident radiation, the photoconductive layer disposed on the conductive layer; and

a continuous chemically ~~protective and~~ functional layer on the photoconductive layer, the chemically ~~protective and~~ functional layer providing a protective layer for the photoconductive layer;

wherein the chemically functional layer prevents liquids and compounds deposited on the chemically functional layer from accessing the photoconductive layer; and

wherein the substrate is capable of having electric charge patterns formed in a selected array thereupon to influence the movement of charged droplets in a medium on the substrate; the chemically functional layer providing a surface to which a binder molecule can be attached.

14. (Previously Presented) A substrate as in Claim 9 wherein the organic photoconductive materials comprise polyvinylcarbazole (PVK) or complexes of polyvinylcarbazole sensitised with trinitrofluorenone.

15. (Currently Amended) A substrate as in Claim 1 wherein the continuous chemically ~~protective and~~ functional layer is disposed on substantially the entire dielectric layer.

16. (Currently Amended) A substrate as in Claim 1 wherein the continuous chemically ~~protective and~~ functional layer is a mono-molecular film.

17. (Currently Amended) A substrate as in Claim 11 wherein the continuous chemically ~~protective and~~ functional layer is disposed on substantially the entire photoconductive layer.

18. (Currently Amended) A substrate as in Claim 11 wherein the continuous chemically ~~protective and~~ functional layer is a mono-molecular film.

19. (Currently Amended) A substrate as in Claim 12 wherein the continuous chemically ~~protective and~~ functional layer is disposed on substantially the entire photoconductive layer.

20. (Currently Amended) A substrate as in Claim 13 wherein the continuous chemically ~~protective and~~ functional layer is a mono-molecular film.